

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

In The Claims:

1. (Currently Amended) In an oxidation inhibiting lubricant composition suitable for use in the manufacture of aluminum alloys ~~comprising~~ containing lubricant base selected from the group consisting of solid lubricants, liquid lubricants, grease lubricants, emulsion lubricants, and dispersion lubricants, the improvement wherein said lubricant composition further ~~comprises~~ contains: an effective amount of a an organic fluorine-containing passivating compound selected from the group consisting of: tetradecafluorohexane, polyhexafluoropropylene oxide, fluorinated ethylene propylene copolymer, perfluoroalkoxy polymers, poly(ethylene-co-tetrafluoroethylene), and polytetrafluoroethylene.

2. (Currently Amended) The lubricant composition of claim 1 ~~comprising~~ containing about 0.1% to about 10% by weight of said fluorine containing passivating compound.

3. (Currently Amended) The lubricant composition of claim 1 ~~comprising~~ containing about 1% to about 8% by weight of said fluorine containing passivating compound.

4. (Currently Amended) The lubricant composition of claim 1
comprising containing about 3% to about 5% by weight of said fluorine containing
passivating compound.
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Original) The lubricant composition of claim 1 sheared in a high
speed mixing operation prior to use in the manufacture of aluminum alloys.
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently Amended) An oxidation inhibiting lubricant composition for use in the casting of aluminum alloys ~~comprising~~ containing: casting lubricant oil base selected from the group consisting of glycerol trioleate, ethyl oleate, methyl oleate, butyl ricinoleate, methyl acetyl ricinoleate, butyl oleate, glycerol triacetyl ricinoleate, butyl acetyl ricinoleate, castor oil, peanut oil, corn oil, canola oil, cotton seed oil, olive oil, rapeseed oil, safflower oil, sesame oil, sunflower oil, soybean oil, linseed oil, coconut oil, palm kernel oil, neatsfoot oil, and combinations thereof, the improvement wherein said lubricant composition further ~~comprises~~ contains: an effective amount of a an organic fluorine-containing passivating compound.

18. (Currently Amended) The lubricant composition of claim 17 ~~comprising~~ containing about 0.1% to about 10% by weight of said fluorine containing passivating compound.

19. (Currently Amended) The lubricant composition of claim 17 ~~comprising~~ containing about 1% to about 8% by weight of said fluorine containing passivating compound.

20. (Currently Amended) The lubricant composition of claim 17 ~~comprising~~ containing about 3% to about 5% by weight of said fluorine containing passivating compound.

21. (Canceled)

22. (Canceled)

23. (Currently Amended) The lubricant composition of claim 17 wherein said fluorine-containing passivating compound is selected from the group consisting of: ~~ammonium hexafluorozirconate, fluorinated carbon, sodium bifluoride, potassium bifluoride, magnesium fluoride, aluminum fluoride, sodium fluoride, calcium fluoride, sodium hexafluosilicate, sodium hexafluorophosphate, potassium zirconium fluoride, sodium fluoborate, tetradecafluorohexane, cryolite, polyhexafluoropropylene oxide, fluorinated ethylene propylene copolymer, perfluoroalkoxy polymers, poly(ethylene-co-tetrafluoroethylene), and polytetrafluoroethylene.~~

24. (Original) The lubricant of claim 17 sheared in a high speed mixing operation prior to use in the casting of aluminum alloys.

25. (Currently Amended) An oxidation inhibiting lubricant composition for use in the casting of aluminum alloys ~~comprising~~ containing: an existing casting lubricant oil base selected from the group consisting of glycerol triolate, castor oil, and combinations thereof, the improvement wherein said lubricant composition further

~~comprises~~ contains: an effective amount of a an organic fluorine-containing passivating compound.

26. (Currently Amended) The lubricant composition of claim 25 ~~comprising~~ containing about 0.1% to about 10% by weight of said fluorine containing passivating compound.

27. (Currently Amended) The lubricant composition of claim 26 ~~25~~ 25 ~~comprising~~ containing about 1% to about 8% by weight of said fluorine containing passivating compound.

28. (Currently Amended) The lubricant composition of claim 26 ~~25~~ 25 ~~comprising~~ containing about 3% to about 5% by weight of said fluorine containing passivating compound.

29. (Canceled)

30. (Canceled)

31. (Currently Amended) The lubricant composition of claim 26 ~~25~~ 25 wherein said fluorine-containing passivating compound is selected from the group consisting of: ~~ammonium hexafluozirconate, fluorinated carbon, sodium bifluoride, potassium bifluoride, magnesium fluoride, aluminum fluoride, sodium fluoride, calcium~~

~~fluoride, sodium hexafluorosilicate, sodium fluoborate, sodium hexafluorophosphate,~~
~~potassium zirconium fluoride, tetradecafluorohexane, eryolite,~~ polyhexafluoropropylene
oxide, fluorinated ethylene propylene copolymer, perfluoroalkoxy polymers,
poly(ethylene-co-tetrafluoroethylene), and polytetrafluoroethylene.

32. (Currently Amended) The lubricant of claim ~~17~~ 25 sheared in a high speed mixing operation prior to use in the casting of aluminum alloys.

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Withdrawn) A process for the continuous casting of aluminum alloys wherein molten aluminum alloy is cast into a cooled mold having a lubricated inner mold wall, said process comprising the steps of:

a) lubricating an inner wall of a cooled, continuous casting mold with an oxidation inhibiting lubricant composition comprising:

i) a casting lubricant base selected from the group consisting of glycerol trioleate, ethyl oleate, methyl oleate, butyl ricinoleate, methyl acetyl ricinoleate, butyl oleate, glycerol triacetyl rincinoleate, butyl acetyl rincinoleate, polyalphaolefins, poly isobutylenes, castor oil, peanut oil, corn oil, canola oil,

cotton seed oil, olive oil, rapeseed oil, safflower oil, sesame oil, sunflower oil, soybean oil, linseed oil, coconut oil, palm kernel oil, neatsfoot oil, and combinations thereof, and;

ii) an effective amount of a fluorine-containing passivating compound.

b) casting a molten aluminum alloy into said mold, whereby said oxidation inhibiting lubricant reduces the oxidation of said molten aluminum base alloy at the meniscus of said lubricated inner mold wall and said molten aluminum base alloy.

37. (Withdrawn) The oxidation inhibiting lubricant composition of claim 36 comprising about 0.1% to about 10% by weight of said fluorine containing passivating compound.

38. (Withdrawn) The oxidation inhibiting lubricant composition of claim 36 comprising about 1% to about 8% by weight of said fluorine containing passivating compound.

39. (Withdrawn) The oxidation inhibiting lubricant composition of claim 36 comprising about 3% to about 5% by weight of said fluorine containing passivating compound.

40. (Withdrawn) The oxidation inhibiting lubricant composition of claim 36 wherein said passivating compound comprises an inorganic fluorine-containing compound.

41. (Withdrawn) The oxidation inhibiting lubricant composition of claim 36 wherein said passivating compound comprises an organic fluorine-containing compound.

42. (Withdrawn) The oxidation inhibiting lubricant composition of claim 36 wherein said fluorine-containing passivating compound is selected from the group consisting of: ammonium hexafluorozirconate, fluorinated carbon, sodium bifluoride, potassium bifluoride, magnesium fluoride, aluminum fluoride, sodium fluoride, calcium fluoride, sodium hexafluorosilicate, sodium hexafluorophosphate, potassium zirconium fluoride, sodium fluoborate, tetradecafluorohexane, cryolite, polyhexafluoropropylene oxide, fluorinated ethylene propylene copolymer, perfluoroalkoxy polymers, poly(ethylene-co-tetrafluoroethylene), and polytetrafluoroethylene.

43. (Withdrawn) The lubricant of claim 36 sheared in a high speed mixing operation prior to use in the casting of aluminum alloys.